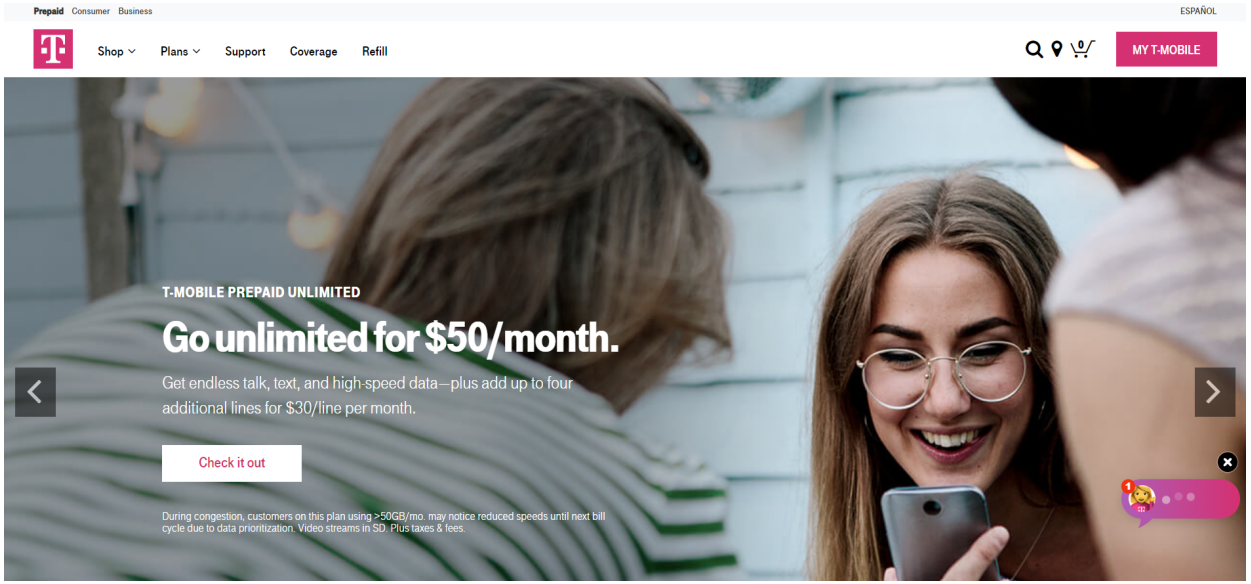
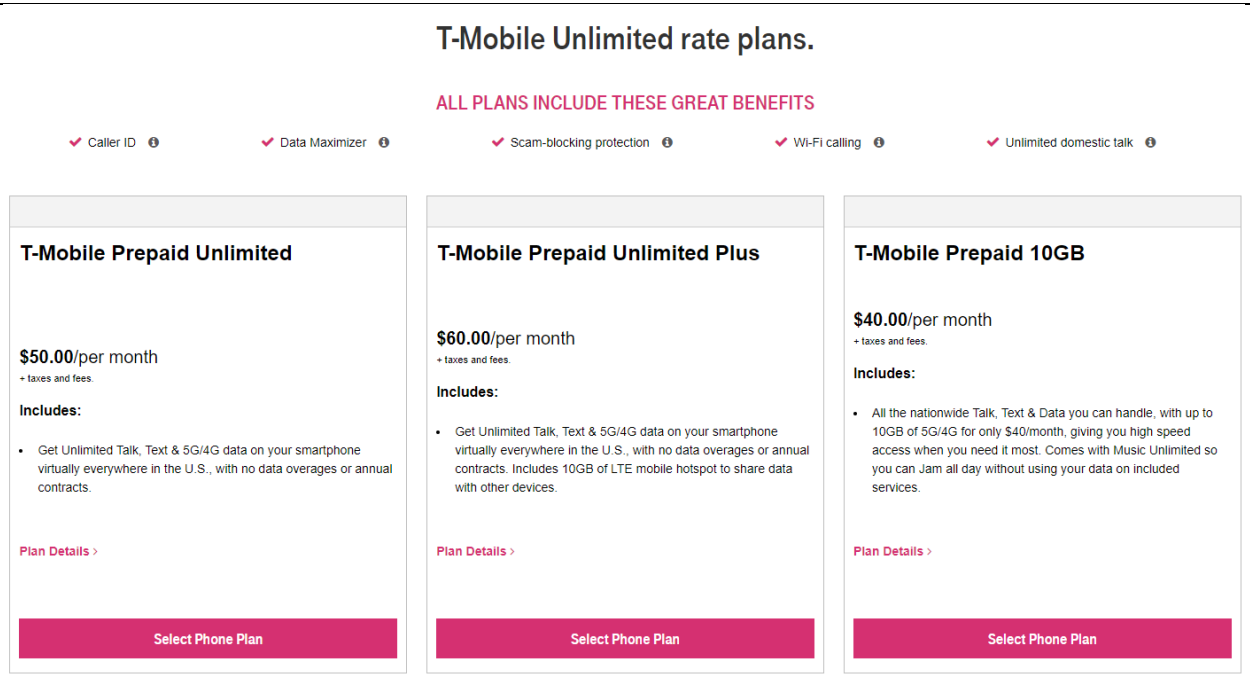
EXHIBIT 7

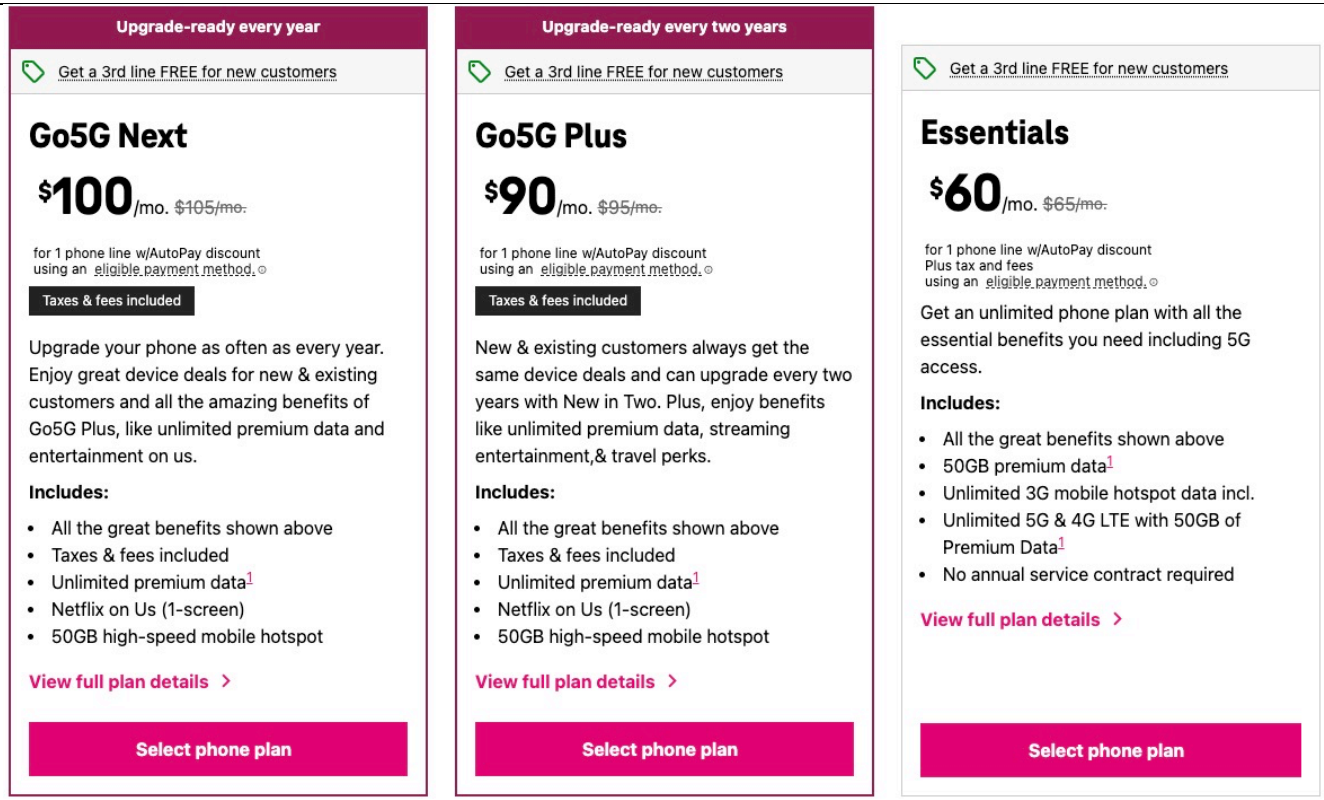
Exhibit H - U.S. Patent No. 9,198,042 ("'042 Patent")

Accused Instrumentalities: smartphones, basic phones, tablets, laptops, and hotspot devices sold (including those sold in bundles with data plans) or used by T-Mobile in conjunction with T-Mobile's servers, hardware, software, and services leased, owned, supported, and/or operated by T-Mobile comprising for use with T-Mobile's wireless network services, and all versions and variations thereof since the issuance of the asserted patent.

Issued Claim(s)	Public Documentation
1. A method comprising:	To the extent the preamble is limiting, T-Mobile's Accused Instrumentalities practice the steps of a method as set forth in the limitations below.
1[a] receiving, over a service control link, a report from a wireless end-user device, the report comprising information about a device service state;	The Accused Instrumentalities comprise receiving, over a service control link, a report from a wireless end-user device, the report comprising information about a device service state. T-Mobile offers telecommunications service plans to customers that are provided through various network elements such as telecommunications base stations and cell sites, edge servers, and other telecommunications servers. T-Mobile provides various network service plans to customers for purchase, including through the T-Mobile.com website as well as through T-Mobile-provided services such as its pre-paid mobile service category, T-Mobile Prepaid Unlimited. *See, e.g.*:  https://prepaid.t-mobile.com/home

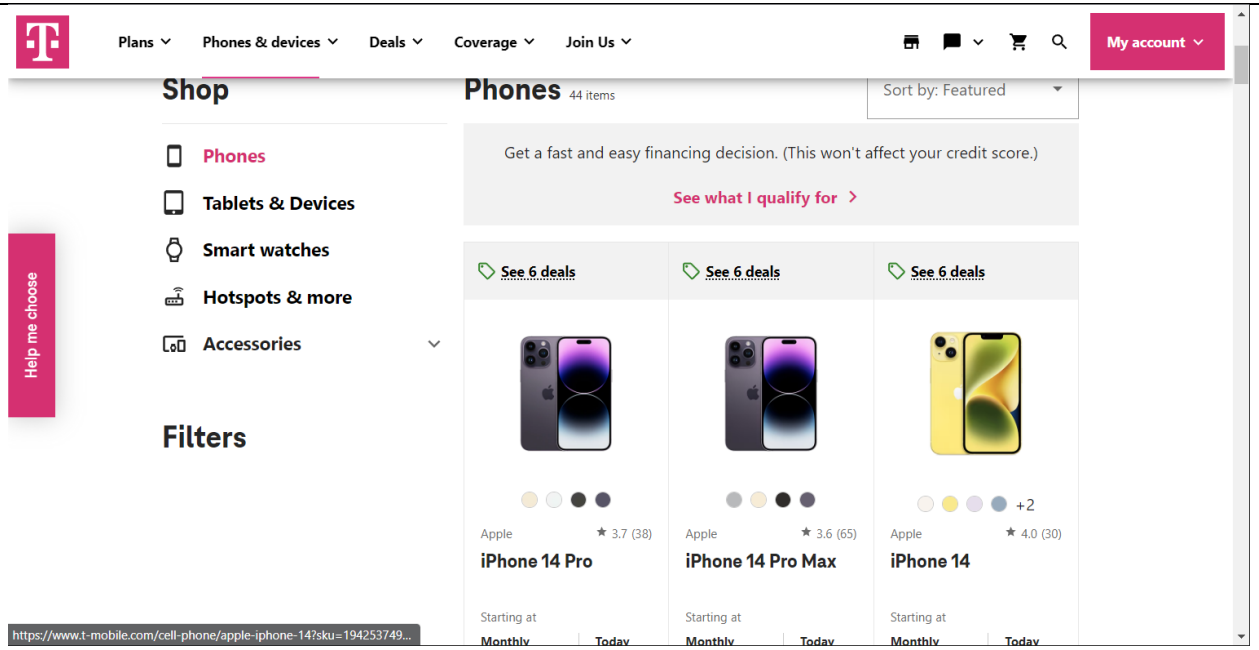


https://prepaid.t-mobile.com/plan-detail/t-mobile-prepaid-plans

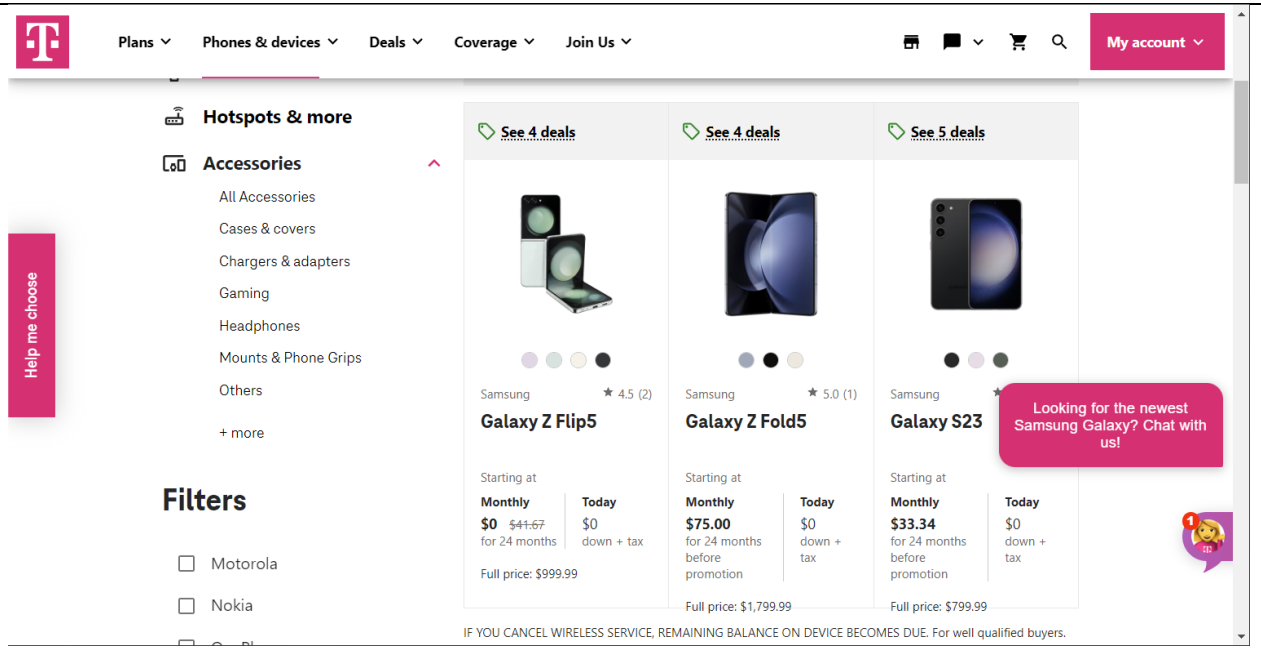


https://www.t-mobile.com/cell-phone-plans

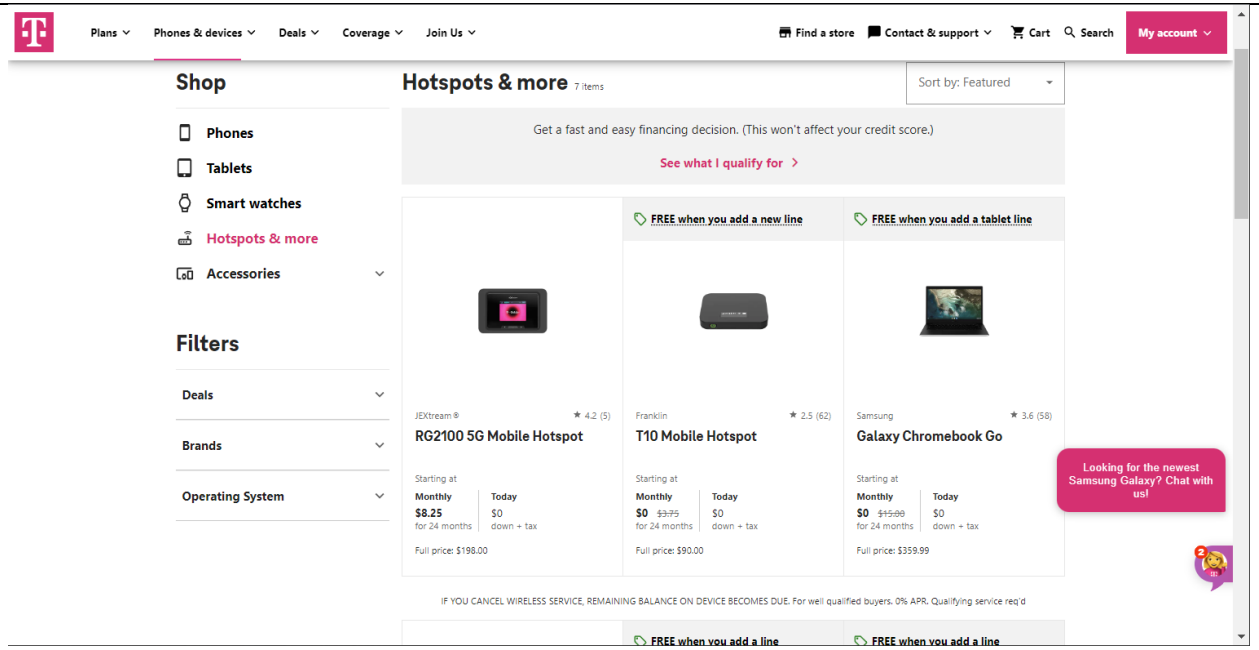
T-Mobile sells mobile devices such as phones, tablets, and hotspot access points which communicate with the T-Mobile wireless service network, which is a wireless access network. Such devices comprise end-user devices, as do devices which customers purchase elsewhere and "bring" to the T-Mobile network. *See, e.g.*:



https://www.t-mobile.com/cell-phones?INTNAV=tNav:Devices:CellPhones



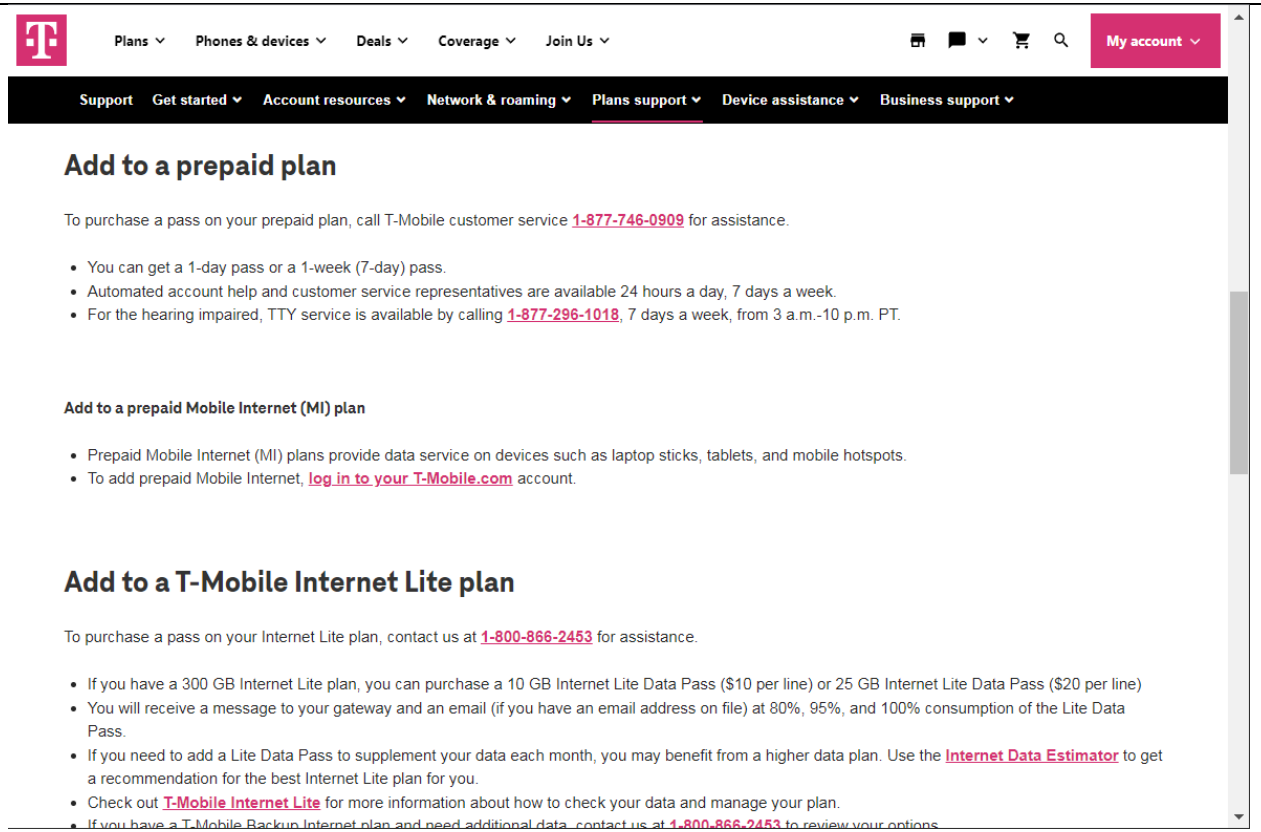
https://www.t-mobile.com/cell-phones/brand/samsung



https://www.t-mobile.com/hotspots-iot-connected-devices

The Accused Instrumentalities use different service plans to provide service, for example, to mobile hotspot devices, mobile phones and tablets provisioned with an "unlimited" data plan, mobile phones and tablets provisioned with a prepaid plan, mobile phones and tablets which for which the associated subscriber account has reached its allotted data limit for the service period, and mobile phones and tablets which are specifically communicating with T-Mobile servers to purchase or increase data allotments (e.g., a T-Mobile "Data Pass").

See, e.g.:



https://www.t-mobile.com/support/plans-features/data-passes#prepaid

Verizon's network receives service plan information from devices which correspond to the subscriber service plan associated with that wireless end-user device, which is a report comprising information about a device service state. For example, Verizon's network receives an attach request, bearer resource allocation request, bearer resource modification request, or PDN connectivity request from a wireless end-user device (UE), which includes a report comprising information about the UE's service state such as UE network capability, UE status, and protocol configuration options (PCO):

Table 8.2.4.1: ATTACH REQUEST message content

IEI	Information Element	Type/Reference	Presence	Format	Length
	Protocol discriminator	Protocol discriminator 9.2	M	V	1/2
	Security header type	Security header type 9.3.1	M	V	1/2
	Attach request message identity	Message type 9.8	M	V	1
	EPS attach type	EPS attach type 9.9.3.11	M	V	1/2
	NAS key set identifier	NAS key set identifier 9.9.3.21	M	V	1/2
	EPS mobile identity	EPS mobile identity 9.9.3.12	M	LV	5-12
	UE network capability	UE network capability 9.9.3.34	M	LV	3-14
	ESM message container	ESM message container 9.9.3.15	M	LV-E	5-n
19	Old P-TMSI signature	P-TMSI signature 9.9.3.26	O	TV	4
50	Additional GUTI	EPS mobile identity 9.9.3.12	O	TLV	13
52	Last visited registered TAI	Tracking area identity 9.9.3.32	O	TV	6
5C	DRX parameter	DRX parameter 9.9.3.8	O	TV	3
31	MS network capability	MS network capability 9.9.3.20	O	TLV	4-10
13	Old location area identification	Location area identification 9.9.2.2	O	TV	6
9-	TMSI status	TMSI status 9.9.3.31	O	TV	1
11	Mobile station classmark 2	Mobile station classmark 2 9.9.2.4	O	TLV	5
20	Mobile station classmark 3	Mobile station classmark 3 9.9.2.5	O	TLV	2-34
40	Supported Codecs	Supported Codec List 9.9.2.10	O	TLV	5-n
F-	Additional update type	Additional update type 9.9.3.0B	O	TV	1
5D	Voice domain preference and UE's usage setting	Voice domain preference and UE's usage setting 9.9.3.44	O	TLV	3
D-	Device properties	Device properties 9.9.2.0A	O	TV	1
E-	Old GUTI type	GUTI type 9.9.3.45	O	TV	1
C-	MS network feature support	MS network feature support 9.9.3.20A	O	TV	1
10	TMSI based NRI container	Network resource identifier container 9.9.3.24A	O	TLV	4
6A	T3324 value	GPRS timer 2 9.9.3.16A	O	TLV	3
5E	T3412 extended value	GPRS timer 3 9.9.3.16B	O	TLV	3
6E	Extended DRX parameters	Extended DRX parameters 9.9.3.46	O	TLV	3
6F	UE additional security capability	UE additional security capability 9.9.3.53	O	TLV	6
6D	UE status	UE status 9.9.3.54	O	TLV	3
17	Additional information requested	Additional information requested 9.9.3.55	O	TV	2

Table 8.3.8.1: BEARER RESOURCE ALLOCATION REQUEST message content

IEI	Information Element	Type/Reference	Presence	Format	Length
	Protocol discriminator	Protocol discriminator 9.2	M	V	1/2
	EPS bearer identity	EPS bearer identity 9.3.2	M	V	1/2
	Procedure transaction identity	Procedure transaction identity 9.4	M	V	1
	Bearer resource allocation request message identity	Message type 9.8	M	V	1
	Linked EPS bearer identity	Linked EPS bearer identity 9.9.4.6	M	V	1/2
	Spare half octet	Spare half octet 9.9.2.9	M	V	1/2
	Traffic flow aggregate	Traffic flow aggregate description 9.9.4.15	M	LV	2-256
	Required traffic flow QoS	EPS quality of service 9.9.4.3	M	LV	2-14
27	Protocol configuration options	Protocol configuration options 9.9.4.11	O	TLV	3-253
C-	Device properties	Device properties 9.9.2.0A	O	TV	1
33	NBIFOM container	NBIFOM container 9.9.4.19	O	TLV	3-257
7B	Extended protocol configuration options	Extended protocol configuration options 9.9.4.26	O	TLV-E	4-65538
5C	Extended EPS QoS	Extended quality of service 9.9.4.30	O	TLV	12

Table 8.3.10.1: BEARER RESOURCE MODIFICATION REQUEST message content

IEI	Information Element	Type/Reference	Presence	Format	Length
	Protocol discriminator	Protocol discriminator 9.2	M	V	1/2
	EPS bearer identity	EPS bearer identity 9.3.2	M	V	1/2
	Procedure transaction identity	Procedure transaction identity 9.4	M	V	1
	Bearer resource modification request message identity	Message type 9.8	M	V	1
	EPS bearer identity for packet filter	Linked EPS bearer identity 9.9.4.6	M	V	1/2
	Spare half octet	Spare half octet 9.9.2.9	M	V	1/2
	Traffic flow aggregate	Traffic flow aggregate description 9.9.4.15	M	LV	2-256
5B	Required traffic flow QoS	EPS quality of service 9.9.4.3	O	TLV	3-15
58	ESM cause	ESM cause 9.9.4.4	O	TV	2
27	Protocol configuration options	Protocol configuration options 9.9.4.11	O	TLV	3-253
C-	Device properties	Device properties 9.9.2.0A	O	TV	1
33	NBIFOM container	NBIFOM container 9.9.4.19	O	TLV	3-257
66	Header compression configuration	Header compression configuration 9.9.4.22	O	TLV	5-257
7B	Extended protocol configuration options	Extended protocol configuration options 9.9.4.26	O	TLV-E	4-65538
5C	Extended EPS QoS	Extended quality of service 9.9.4.30	O	TLV	12

Table 8.3.20.1: PDN CONNECTIVITY REQUEST message content

IEI	Information Element	Type/Reference	Presence	Format	Length
	Protocol discriminator	Protocol discriminator 9.2	M	V	1/2
	EPS bearer identity	EPS bearer identity 9.3.2	M	V	1/2
	Procedure transaction identity	Procedure transaction identity 9.4	M	V	1
	PDN connectivity request message identity	Message type 9.8	M	V	1
	Request type	Request type 9.9.4.14	M	V	1/2
	PDN type	PDN type 9.9.4.10	M	V	1/2
D-	ESM information transfer flag	ESM information transfer flag 9.9.4.5	O	TV	1
28	Access point name	Access point name 9.9.4.1	O	TLV	3-102
27	Protocol configuration options	Protocol configuration options 9.9.4.11	O	TLV	3-253
C-	Device properties	Device properties 9.9.2.0A	O	TV	1
33	NBIFOM container	NBIFOM container 9.9.4.19	O	TLV	3-257
66	Header compression configuration	Header compression configuration 9.9.4.22	O	TLV	5-257
7B	Extended protocol configuration options	Extended protocol configuration options 9.9.4.26	O	TLV-E	4-65538

3GPP TS 24.301 v15.03

Flows

There are three scenarios where the PCO value will be passed to the host:

- When a new PCO value has arrived on an activated connection
- When an app or service queries for the latest PCO value from the modem
- When a connection is bridged or activated for the first time and a PCO value already exists in the modem

For the first scenario, the modem should send an NDIS_STATUS_WWAN_PCO_STATUS notification to the OS indicating a new PCO value change whenever a new PCO value is received from the network, with the appropriate NDIS port number to represent the corresponding PDN. To avoid draining the battery unnecessarily, the modem should avoid noisy notifications, as described in Modem behavior with Selective Suspend and Connected Standby.

For the second scenario, when an app or service queries for PCO value from the modem on an activated PDN connection, the host will send the modem an OID_WWAN_PCO query request to read the latest cached PCO value in the modem.

For the third scenario, when a connection is activated or bridged on the host, the modem should send an **NDIS_STATUS_WWAN_PCO_STATUS** notification when a PCO value already exists in the modem for the activated or bridged connection the host requested. The notification should be passed up from the corresponding NDIS port number of the PDN.

	https://learn.microsoft.com/en-us/windows-hardware/drivers/network/mb-protocol-configuration-options-pco-operations
1[b] determining, based on the report, that a particular service policy setting of the wireless end-user device needs to be modified, the particular service policy setting being stored in a protected partition of the wireless end-user device, the protected partition configured to deter or prevent unauthorized modifications to the particular service policy setting, the particular service policy setting being associated with a service profile that provides for access by the wireless end-user device to a network data service over a wireless access network, the particular service policy setting configured to assist in controlling one or more communications associated with the wireless end-user device over the wireless access network; and	The Accused Instrumentalities comprise "determining, based on the report, that a particular service policy setting of the wireless end-user device needs to be modified, the particular service policy setting being stored in a protected partition of the wireless end-user device, the protected partition configured to deter or prevent unauthorized modifications to the particular service policy setting, the particular service policy setting being associated with a service profile that provides for access by the wireless end-user device to a network data service over a wireless access network, the particular service policy setting configured to assist in controlling one or more communications associated with the wireless end-user device over the wireless access network." Examples of such service policy settings on the wireless end-user device include, for example, APN access settings and service plan settings stored on the wireless end-user device, including for example in an encrypted partition of the device or in an encrypted SIM card. Such service policy settings are configured to assist in controlling one or more communications associated with the wireless end-user device over the wireless access network, insofar as the policies are used by T-Mobile to determine the levels of service that are to be provided to the wireless end-user device. Carrier configuration information (which is service profile information) on a given wireless end-user device is secured within the device through the use of privileges and other access settings, including through the use of matching signatures between the carrier settings and one stored with the SIM card information. *See, e.g.*: **Manually update your carrier settings on your iPhone or iPad** Carrier settings updates let your carrier provider update carrier network and related settings to improve cellular network connectivity and performance. Carrier settings updates can also add support for new features like 5G or Wi-Fi Calling. When a carrier settings update is available, you'll be prompted to install it. Installation takes less than one minute, and you can keep using your device normally. If your carrier releases a mandatory update, you'll see an OK button instead of an Update button to let you know that the update was downloaded and installed. https://support.apple.com/en-us/HT201270